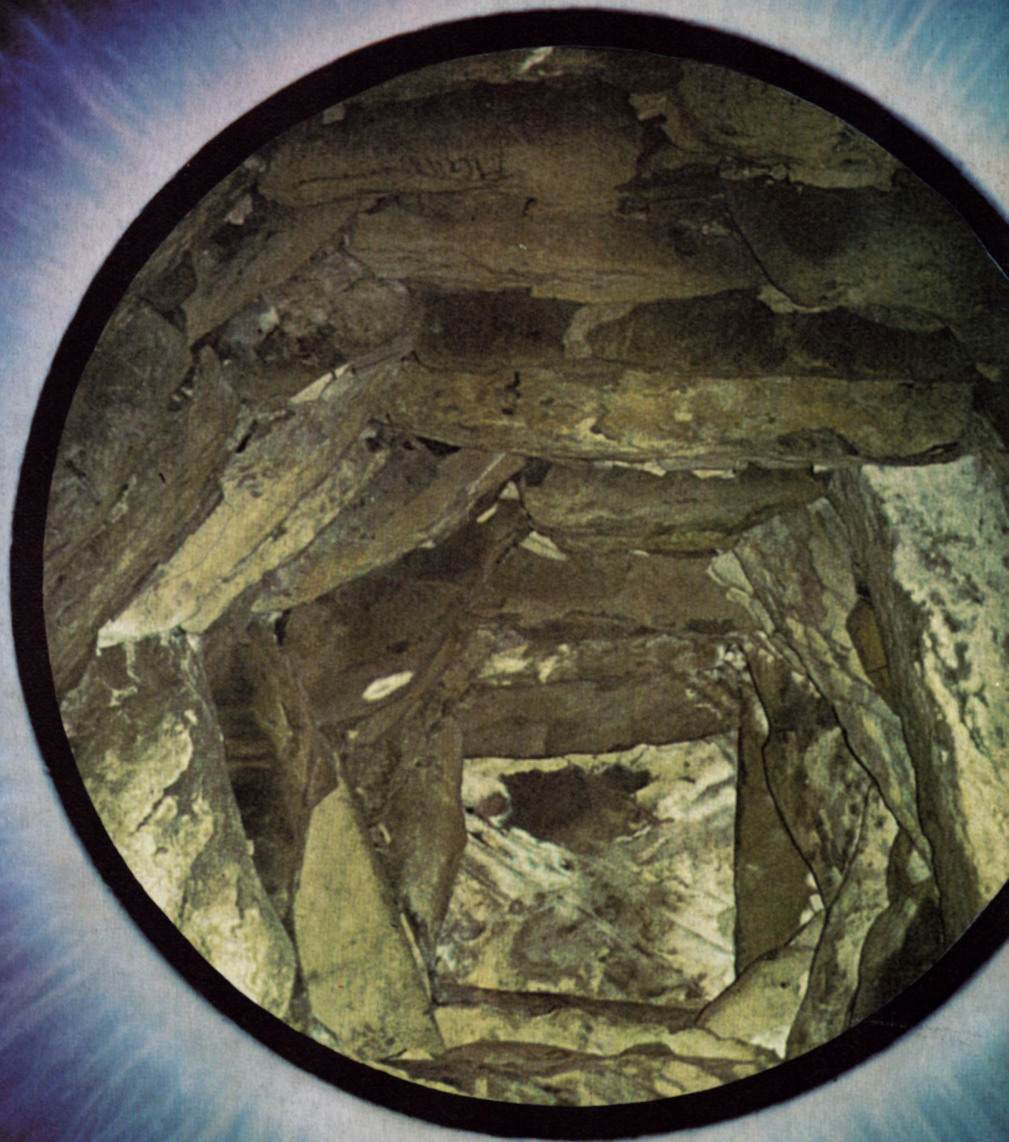


THE Unexplained

MYSTERIES OF MIND SPACE & TIME

Ghosts without souls
Other dimensions
'Hollow Earth' - solved
Dreams of discovery
UFO side effects
Lines of force

28



THE Unexplained

MYSTERIES OF MIND SPACE & TIME

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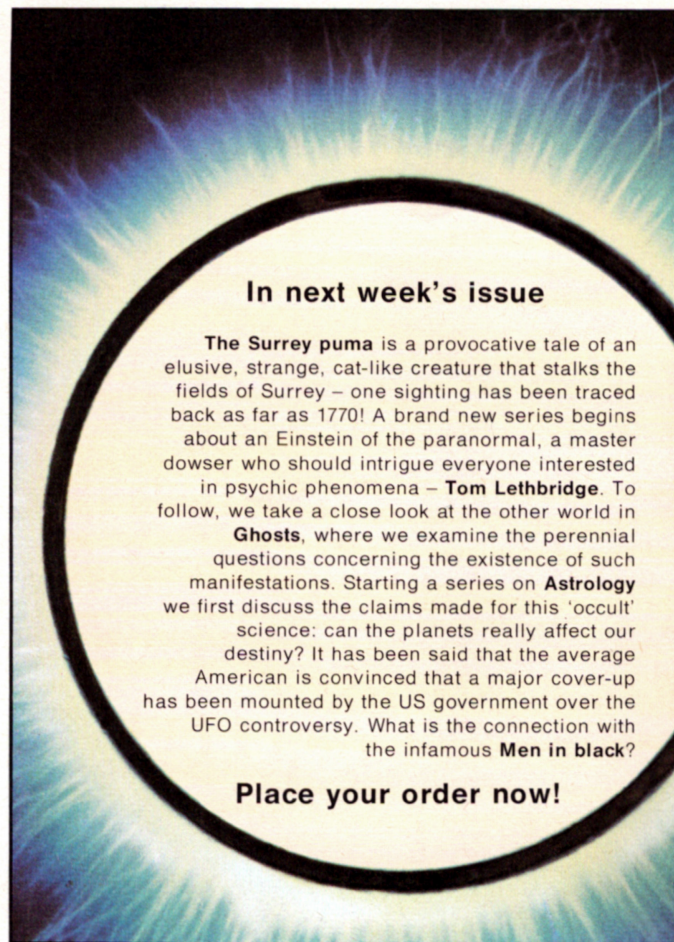
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In next week's issue

The Surrey puma is a provocative tale of an elusive, strange, cat-like creature that stalks the fields of Surrey – one sighting has been traced back as far as 1770! A brand new series begins about an Einstein of the paranormal, a master dowser who should intrigue everyone interested in psychic phenomena – **Tom Lethbridge**. To follow, we take a close look at the other world in **Ghosts**, where we examine the perennial questions concerning the existence of such manifestations. Starting a series on **Astrology** we first discuss the claims made for this 'occult' science: can the planets really affect our destiny? It has been said that the average American is convinced that a major cover-up has been mounted by the US government over the UFO controversy. What is the connection with the infamous **Men in black**?

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Worlds within worlds

Many paranormal events seem to take place somewhere on the fringes of reality, as if we were put fleetingly in touch with a further plane of existence. GUY LYON PLAYFAIR discusses this idea of 'other dimensions'

NEARLY A CENTURY AGO the Reverend Edwin Abbott wrote a book called *Flatland*, a romance of many dimensions. Flatland was a world of two dimensions, a flat surface on which creatures of various geometrical shapes slid around, without ever leaving it or imagining such a thing to be possible. Life was uneventful in Flatland until one day an ordinary inhabitant, a square, had a paranormal experience: a visit by a Thing from Upper Space. What he was seeing was a

It is possible that UFOs come from another dimension – which may explain the brevity of most sightings, as two kinds of reality make momentary contact. Another proposition, that UFOs may be thought-projections, would suggest that the human mind itself can create extra-dimensional entities

three-dimensional body, a sphere, but he was aware only of its cross-section, a circle, as it penetrated Flatland. The visitor peeled the square off the flat surface on which he dwelt and took him on a mind-expanding trip into the third dimension. When the square got home nobody would believe him and he was imprisoned as a menace to society. Many medieval scientists and modern psychical researchers could sympathise with his plight.

How would it feel to be a Flatlander? His world is as real to him as ours is to us. He can slide around forwards, backwards, and sideways, always in the same plane, but he has no conception of 'up' or 'down'. There are no such words in Flatlanguage.

We, with our knowledge of a third dimension of space, could play all sorts of tricks with Flatlanders. We could hang objects of various shapes above them and project shadows onto the surface, moving the light to and fro to create terrifying and rapidly changing shadows. The flat folk would see an extraordinary creature changing its shape and suddenly disappearing.

UFOs and the fourth dimension

But they would not readily be believed by their friends who had not witnessed these events. Modern UFO contactees have had the same problem. Yet it is possible that UFOs and 'apparitions' of all kinds may be no more than three-dimensional 'projections' of beings existing in a space of four or more dimensions – a space we are unable to perceive or imagine, and can only abstractly comprehend.

When a sphere passes through Flatland, the inhabitants of the latter can perceive only its cross-section. This is a disc that grows from a point to the full diameter of the sphere and then shrinks again as the sphere passes on. A different solid, such as a cube, would give rise to apparitions of different shapes and behaviour. In the same way a four-dimensional 'hypersphere' or 'hypercube', passing through our own three-dimensional Universe – which might be only one of many that the four-dimensional beings could perceive – would give rise to apparitions that were its three-dimensional 'cross-sections'. These would grow, shrink, change shape, break into fragments, and follow erratic courses, according to the complexity of the four-dimensional object's form and its movement in the higher space.

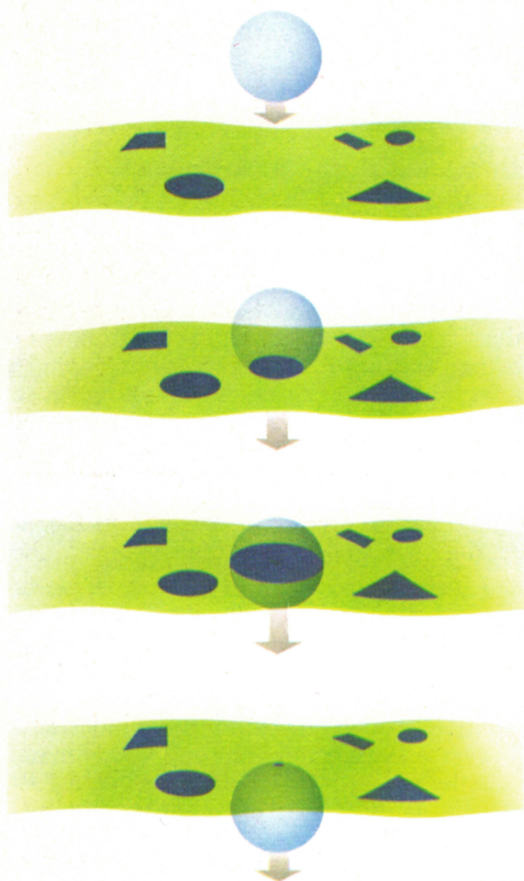
It is difficult for anyone to grasp the fact that he, like the Flatlanders, may be experiencing only a small part of reality. We would all agree that the Flatlanders' concepts of reality are incomplete, while perhaps overlooking the fact that ours may be equally incomplete, simply because our experience is limited by the extent of our five recognised senses. Einstein's theories of relativity predicted curved space, time travel and black holes, and some of these predictions have been confirmed, but we still cannot claim to

Other dimensions

have any ability to visualise such things. We assume that scientists know what they are talking about, with their event horizons and wormholes in space (see page 119), and leave it at that. We have enough trouble as it is in coming to terms with such reality as we can perceive.

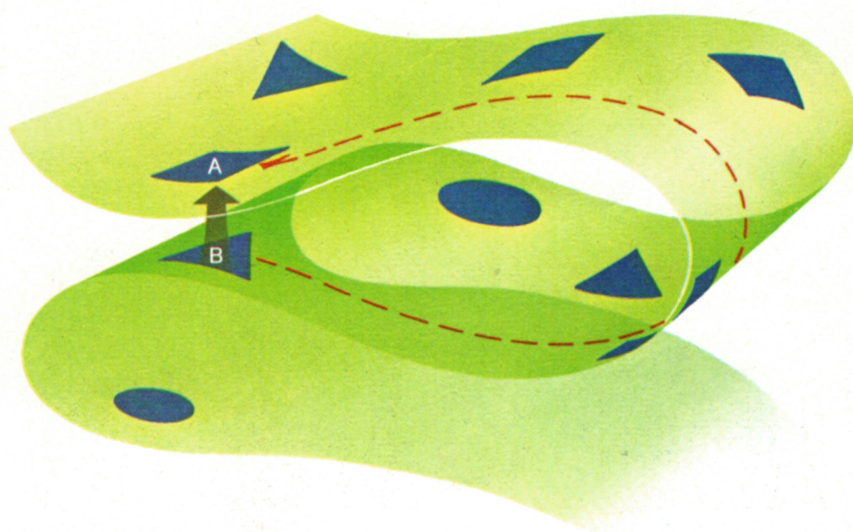
The trouble with human beings is that, as Colin Wilson has put it, they tend to become trapped in 'the suffocating world of their personal preoccupations', or what Heidegger called 'the triviality of everydayness'. Yet every so often one of us escapes, and apparently visits other dimensions:

The sphere of my vision now began to widen . . . I could distinctly perceive the walls of the house. At first, they seemed very dark and opaque; but soon became brighter, and then transparent; and presently I could see the walls of



the adjoining dwelling. These also immediately became light and vanished – melting like clouds before my advancing vision. I could now see the objects, the furniture, and persons, in the adjoining house as easily as those in the room where I was situated. . . .

This experience happened in 1844 to a barely literate young American named Andrew Jackson Davis, the 'seer of Poughkeepsie'. He went on to describe how, after he had been hypnotised by the village tailor, his perceptions 'flowed on' until he could see 'the brains, the viscera and the complete



In his story *Flatland*, the Reverend Edwin Abbott dramatised the strange effects of an unperceived higher dimension. The Flatlanders (who are all geometrically shaped) live in a two-dimensional world (left). When a three-dimensional being passes through their world, the baffled Flatlanders see only its cross-section, swelling to a maximum, shrinking and vanishing. Flatland, unknown to its inhabitants, could be folded in three-dimensional space (top). Flatlanders A and B, too far apart in their own terms (dotted line) to see each other normally, would be close in the third dimension. If A, by a freak of nature, acquired the ability to see through the third dimension, he could glimpse B – an apparent case of ESP. Can higher dimensions similarly affect our world, and lie behind paranormal phenomena?

anatomy of animals that were at that moment sleeping or prowling about in the forests of the Eastern Hemisphere'. In numerous subsequent sessions, he put his clairvoyantly acquired knowledge to practical use: he made medical diagnoses of patients at a distance, anticipating the work of his compatriot Edgar Cayce by 60 years, and he eventually acquired the knowledge to write 27 books, including the five-volume *The great harmony*, which was subtitled: *A philosophical revelation of the natural, spiritual and celestial Universe*.

'The plane of the inner-between'

Edgar Cayce (1877–1945) was another person who seemed able to gain access to a huge mass of information, on subjects ranging from Atlantis, ancient Egypt and reincarnation to detailed cures for practically every known ailment. He could give accurate descriptions of his patients at a distance, including accounts of their past and future lives for good measure. Yet in more than 14,000 sessions in which an anonymous speaker took over Cayce's body during his self-induced trances, there are tantalisingly few indications as to how he did it. References were made to 'the plane that is of the inner-between', which we all apparently occupy while waiting to be reincarnated, and to 'realms where information may be obtained', but we are not told where these realms are or how Cayce got there.

The Dutch clairvoyant healer Gerard Croiset (see page 488) was a more articulate time-space traveller, who has left us an account of how he was often able to produce information that assisted the police to solve crimes, especially those involving missing children.

'First of all,' he said, 'I see a mist. That mist, like on printing paper, consists of little dots.' If he were sufficiently interested in the case, the dots would form lines. That, he said, was the 'first dimension', and sometimes this was as far as his vision went. But

Creatures from elsewhere



If objects such as UFOs and 'apports' such as mysterious falls of fish enter our world from another dimension, may not people of some kind live there too?

For centuries people have reported seeing elves, fairies and other manlike creatures who seem to inhabit a world closely connected to, but not entirely part of, our own. Such reports continue to come in. But perhaps the most coherent recent account of a visit from 'elsewhere' comes from Mrs Ann Atkin, of Devon, England.

Her story is unusual because, unlike most such sightings, there was apparently a very real purpose behind it. One day in 1977 she was walking in the front



drive to her house when a gnome stepped into view. (It was, she says, 'quite a shock.')

It communicated with her telepathically: the gnomes wanted some kind of organisation to represent their interests. Mrs Atkin now runs Gnome International, and the grounds of her home have been festooned with model gnomes of all kinds.

This was not the only time that gnomes appeared. On one occasion an international convention of them arrived for several days, an event that her husband also witnessed. Their message is disarmingly simple: that we should try to get into harmony with nature for, having done that, we shall be in harmony with ourselves and each other, and will no longer plunder either the Earth or our neighbours.

Gnomes are traditionally guardians of the earth, and are manifestations of the spirit of rock, just as salamanders are of fire, or nereids are of water. But are they creatures from another dimension? Mrs Atkin adds an intriguing detail about the gnomes she saw: 'The hoods of the male gnomes were pointed, but the female hoods were in a spiral. This indicates their origin – the pointed hood symbolises "above", and the spiral symbolises "within".' A place that is both within and above this world may co-exist with it, but it is surely on another plane of some kind. And some people, apparently, are able to perceive it.

when he felt a close rapport with the case, the lines would cross and start to form figures in two dimensions, like photographs. Finally, if he were on top form, the pictures would come to life. 'Then I see rather like we see a movie. I will see movement, I will see colours, rather like I see you sitting there now.'

Czechoslovak healer-priest František Ferda gives extremely precise diagnoses and prescriptions at a distance to up to 35 patients a day. He also identifies the cause of the ailment – whether it is due to eating bad food, a leaking gas stove or even accidents that occurred not to the patient but to his ancestors. 'I descend into some kind of archive from where I deduct the data needed,' he says, believing this 'information field' to contain a record of all past events, ideas and thoughts.

When acquiring this knowledge, he reports 'absolutely no sensory perception' except that of sound. Unlike Davis, Cayce and Croiset, Ferda sees nothing. It seems to him instead that information of great precision on all parts of the patient's body is spoken in his ear. Mention of this 'archive' invites comparison with the 'Akashic records', which supposedly embody a complete record of the

history of the Universe and become visible to mediums in trance. The psychologist Dr Zdeňek Rejdák has stated the existence of such a comprehensive information field to be 'an objective reality'.

Mediums and memory banks

It now seems undeniable that some people are able to retrieve information across both space and time, though the medium in which such data are stored and transmitted remains a complete mystery. Dr Rejdák claims it is already possible to 'recreate past events' by contacting the information field. He believes that a fuller understanding of it will help explain several phenomena, from 'spirit communication' to reincarnation. Here is surely an extremely promising subject for further research.

But in addition to these mental and spiritual phenomena, there is more tangible evidence of communication through other dimensions. The appearances and disappearances of objects and people under mysterious circumstances have also been linked to the idea of 'higher spaces'.

What is the physical evidence for other dimensions? See page 598

Misinterpreted satellite pictures, an explorer's twisted words and an age-old belief – is this all the evidence for the hollow Earth?

W. A. HARBINSON sums up the case for and against

JUST HOW MUCH TRUTH was contained in the assertions of Palmer, Bernard and Giannini and the other leading believers in the hollow Earth? Alas, very little.

The most extensive research has offered no confirmation for any of the extraordinary statements attributed to Rear-Admiral Byrd – nor for his reported flight over the North Pole in February 1947. (Byrd flew over the *South* Pole on 16 February 1947, during his extensive Operation High Jump.) Even accepting that Byrd *did* make such comments, it is more reasonable to assume that 'the land beyond the Pole' and the 'Great Unknown' are merely descriptive phrases for hitherto unexplored regions rather than for unknown continents hidden in a hollow Earth – and that the 'enchanted continent in the sky' was merely a description of a common phenomenon in Antarctic conditions – the mirage-like reflection of land.

But what, precisely, did Rear-Admiral Byrd say? In extracts from his journal, published in the *National Geographic* magazine of October 1947, he wrote: 'As I write this, we are circling the South Pole. . . . The Pole is approximately 2500 feet [760 metres] below us. On the other side of the Pole we are looking into that vast unknown area we have struggled so hard to reach.'

Where the mammoth roams

Did Byrd claim to have flown 1700 miles (2750 kilometres) beyond the North Pole in February 1947? No. Describing his flight beyond the *South* Pole on 16 February 1947, he wrote: 'We flew to approximately latitude 88°30' south, an estimated 100 miles [160 kilometres]. Then we made approximately a right-angle turn eastward until we reached the 45th east meridian, when we turned again, this time on our way back to Little America.'

There are even some people who maintain that they saw a newsreel feature on Byrd's flight over the North Pole, showing 'its mountains, trees, river, and a large animal identified as a mammoth'. One woman wrote to Ray Palmer about this alleged newsreel, claiming to have seen it in White Plains, New York, in 1929. She ends her letter:

Byrd narrated this film himself and exclaimed in wonder as he approached a warm water lake surrounded by conifers, with a large animal moving about among the trees, and what Byrd described as a mountain of coal, sparkling with diamonds.

Intriguing though this 'short' would have been, there is no record of it now in any

archive. A US Government cover-up? Or did the film ever really exist in the first place? It is curious how believers 'remember' in good faith a film that was almost certainly never taken – though apparently many of our early memories are 'invented'.

Did Byrd report seeing on that journey, not ice and snow, but land areas consisting of mountains, forests, green vegetation, lakes and rivers and, in the 'undergrowth', a strange animal that resembled a mammoth? No. According to his journal: 'Altogether we had surveyed nearly 10,000 square miles [25,900 square kilometres] of "the country beyond the Pole". As was to be expected, although it is somewhat disappointing to report, there was no observable feature of any significance beyond the Pole. There was only the rolling white desert from horizon to horizon.'

Wishful thinking about such legendary lost worlds as Thule and the Antarctic's Rainbow City inexorably led to even more colourful distortions of fact.

What of the fabled Rainbow City? This is almost certainly an offspring of Rear-Admiral Byrd's original description of his flight back from the South Pole in February 1947, over hitherto unexplored country between the Beardmore and Wade Glaciers. 'It

The solid facts



Above: taken on the Apollo 17 Moon mission, this view of Earth shows Antarctica clearly. Before the technical advances of the 20th century, Man could only guess at the formation of the planet. Now Earth has been photographed from space and analysed with the most sensitive equipment, is it clear how it was formed?

Below: Admiral Byrd – did he discover a hollow Earth?



might have been called the Avenue of Frozen Rainbows,' Byrd wrote. 'To east and west towered great mountains. Some were free of ice – coal black and brick red. Others were completely ice-covered. These looked like titanic waterfalls. Where the sun struck their peaks and slopes the light was reflected from them in an indescribable complex of colours. There were blends of blues, purples, and greens such as man seldom has seen.'

Thus, given Byrd's actual words as distinct from those attributed to him, we can see that neither lush green lands nor living mammoths were seen beyond the South Pole; that the quoted figure of 1700 miles (2750 kilometres) beyond the Pole, even if not invented, was probably extrapolated from an original figure given in square miles; that Rainbow City has no substance other than as Byrd's descriptive 'Avenue of Frozen Rainbows' – a normal atmospheric phenomenon in the Antarctic; and that 'the land beyond the Pole' and/or the 'Great Unknown' were merely, in Byrd's own words, 'the vastest unknown which remains in the world'.

Nonetheless, could the Earth still be hollow? Again, the answer has to be negative. Contrary to the assertions of the hollow Earth theorists, the physical properties and structure of the Earth's interior can now be accurately measured with seismometers and electronic computers. Far from being hollow, the Earth is composed of three principal layers: the crust, the mantle and the core. The crust of granite and basalt rock is up to 25 miles (40 kilometres) thick (much

Further reading

Francis King, *Satan and swastika*, Mayflower Books 1976

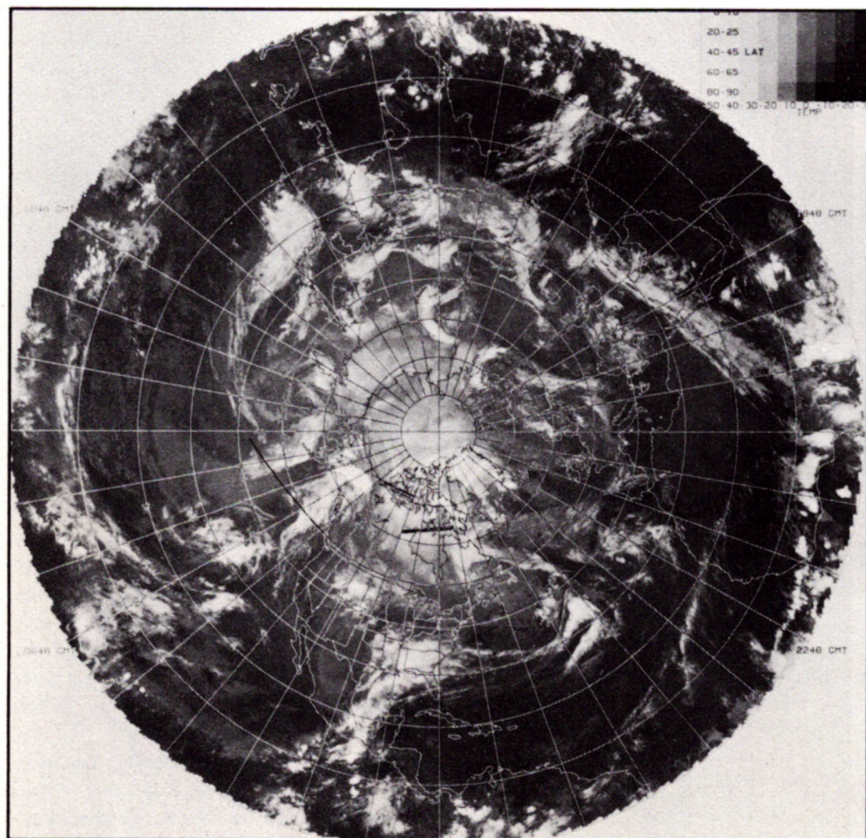
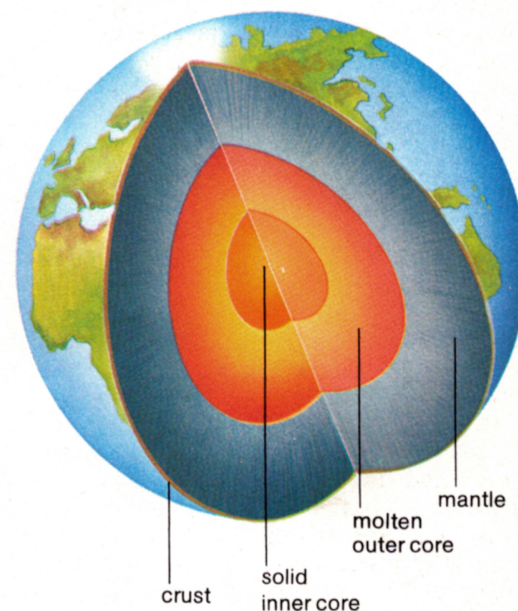
Brinsley Le Poer Trench, *Secrets of the ages*, Panther 1976

John Sladek, *The new apocrypha*, Panther 1978

Right: diagram showing the geological composition of the Earth. The planet consists of crust, mantle and core; any hollow part exists only in the imagination

Below: a mosaic, or composite photograph of the North Pole taken from a meteorological satellite during the summer of 1973. Here the polar area is adequately lit but in winter the North Pole is in continuous darkness – and in photographs appears as a large black 'hole'

thinner beneath the deep oceanic basins). Below the crust is the mantle, extending downwards for about 1800 miles (2900 kilometres), solid and composed of magnesium silicates, iron, calcium and aluminium. And below this is the core, believed to be predominantly composed of metallic iron in the molten state. Finally, at a depth of about 3160 miles (5090 kilometres), is the boundary of the inner core, which may be solid as the result of the iron freezing under the extraordinary pressure of about 3,200,000 atmospheres. Certainly, then, the Earth is not remotely hollow.

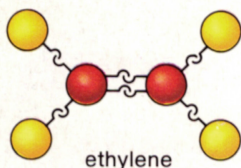
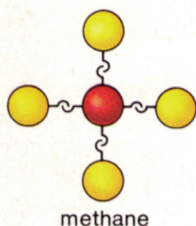
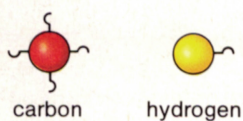


And what of the enormous hole apparently shown on the satellite photograph of the Arctic regions? The explanation is absurdly simple and could have been thought of by an intelligent child who knew something of the Earth's daily rotation. Unfortunately, the hollow Earth enthusiasts seized on the photograph as 'proof' without reference to such a level of expertise.

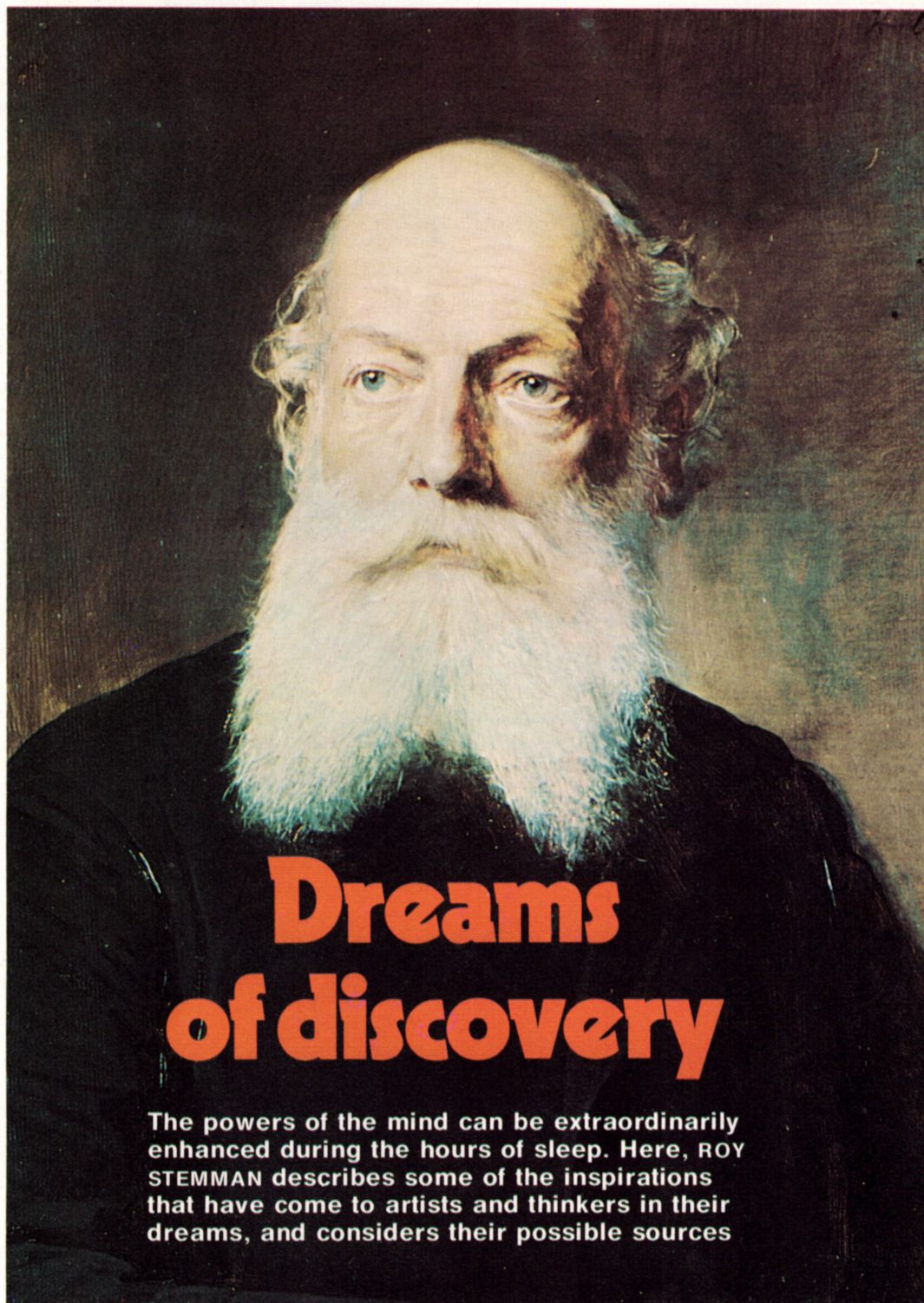
The photograph is a mosaic of television images gathered by the satellite over 24 hours, showing the Earth from many angles. The images were processed by a ground computer and reassembled to form a single composite view of the Earth as if viewed from a single point directly over the Pole. During the 24 hours, every point in the middle and equatorial latitudes received sunlight for a period, and so appears on the composite picture. But regions near the Pole were experiencing the continuous darkness of the northern winter. Hence an unlit area occupies the centre of the picture.

Similar pictures made during the northern summer show the polar ice-cap. So do pictures made at any time of year using infrared (heat) wavelengths, since the Earth sends out heat radiation during both day and night.

In short, there are no holes at the Poles – and the Earth is not hollow.

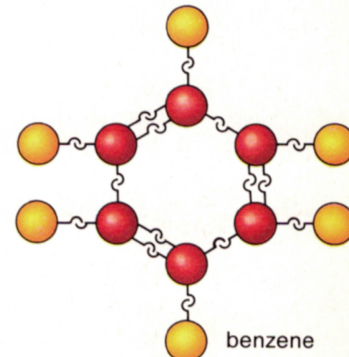
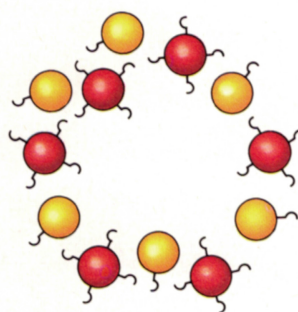
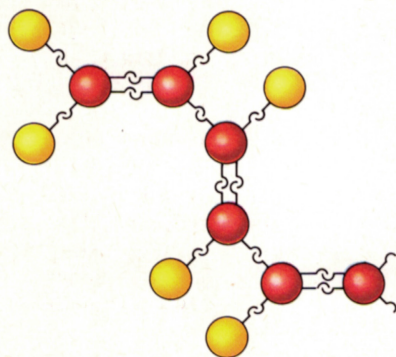


The structure of benzene was discovered by August Kekulé (right) in a dream. Kekulé wanted to work out how the hydrogen and carbon atoms in benzene linked together. Carbon atoms have four 'hooks', or valence bonds (above), while hydrogen has one. Four hydrogens can link with one carbon to form the methane molecule, or with two carbons to form the ethylene molecule. But in benzene, six carbons are linked with six hydrogens. When Kekulé tried to imagine them forming a chain (below left), some unattached 'hooks' were left over. In a dream (below centre) he saw a snake swallowing its own tail, then the carbon and hydrogen atoms swirling in a circle, and finally a ring-shaped structure (below right), now known to be the correct form of the benzene molecule



Dreams of discovery

The powers of the mind can be extraordinarily enhanced during the hours of sleep. Here, ROY STEMMAN describes some of the inspirations that have come to artists and thinkers in their dreams, and considers their possible sources



DREAMS CAN REVEAL not only the future but also, it seems, unsuspected truths about the world of the present. Many scientific innovations have made their appearance in dreams. One of the most celebrated had a revolutionary impact on chemistry.

In 1863 a gifted young German scientist, August Kekulé, was writing the second volume of a treatise on chemistry and had to deal with the problem of the chemical structure of the aromatic compounds. These were strong-smelling substances that contained hydrogen and carbon, and were derived from coal tar.

The smallest unit of any compound is called a molecule: it is a cluster of atoms, which can be pictured as linked by chemical 'hooks' called valence bonds. All the 'hooks' are linked to others, with none left free. Each type of atom has, in general, a fixed, small number of valence bonds. Carbon, for example, has four.

Kekulé had already shown how carbon atoms could form chains that were the 'backbones' of complex molecules. He had also cleared up some puzzles by showing that atoms could be joined by double or even triple links.

The structure of a molecule could often be explained by working out how the valence bonds of its constituent atoms could be linked. But no amount of ingenuity could form a chain of six carbon atoms with six hydrogen atoms, each of which had only one valence bond. Yet this was known to be the composition of benzene, the simplest of the aromatic compounds.

The solution came to Kekulé when he was dozing, half-way between sleeping and waking. He saw the benzene molecule as a snake that suddenly wriggled into a circle and swallowed its own tail. Kekulé woke and realised that the problem of benzene's structure could be solved if the six carbon atoms formed a ring, with the hydrogen atoms attached. An enormous field, the chemistry of the ring compounds, was opened up, and became the basis of the prosperous German dye industry.

A dream experiment

Another scientific breakthrough had its origin in a dream of the German-born physiologist Otto Loewi in 1921. He had been studying the transmission of signals along the nerves of animals. Nearly 20 years before, Loewi, like other scientists, had speculated that chemical processes were intimately involved in the mechanism of transmission of nerve signals, but little progress had been made with the idea. Inspiration came to Loewi in his sleep:

The night before Easter Sunday of [1921] I awoke, turned on the light, and jotted down a few notes on a tiny slip of thin paper. Then I fell asleep again. It occurred to me at six o'clock in the morning that during the night I had

Right: Otto Loewi was a brilliant German-born scientist who devoted his life to studying the chemistry of the human body. A crucial experiment came to him in a dream. It showed how nerves control muscles, and answered a question that he had posed nearly 20 years before



A pact with the devil?

Giuseppe Tartini, a leading violinist of 18th-century Italy, was reputed to have made a compact with the Devil in a dream. The nocturnal visitor played a violin piece more ravishing than anything Tartini had ever heard. When he attempted to recapture it in the morning, he composed a sonata called *The Devil's Trill*, of truly fiendish difficulty. In Tartini's view it was a mere shadow of the music he had heard in his dream. However, his deal with the Devil led to worldly success. The story may have been prompted by the indiscretions of his early career, when he was arrested for marrying a protégée of the Archbishop of Padua. His prowess as a violinist may have contributed to the pardon that he received from the Archbishop.

written down something most important, but I was unable to decipher the scrawl. The next night, at three o'clock, the idea returned. It was the design of an experiment to determine whether or not the hypothesis of chemical transmission that I had uttered 17 years ago was correct. I got up immediately, went to the laboratory, and performed a simple experiment on a frog heart according to the nocturnal design. . . . Its results became the foundation of the theory of the chemical transmission of the nervous impulses.

Loewi's experiment threw light on the way in which electrical signals carried by nerves cause reactions in muscles – that is, how the brain controls the body. Loewi concluded from his experiment that in frogs the nerves do not stimulate the heart directly; specific chemical substances are liberated at the nerve terminals that modify the heart's functioning. For his work on chemical transmission of nerve impulses, Loewi shared a Nobel Prize with his old friend Sir Henry Dale in 1936.

These dream inspirations are not isolated



Above: Samuel Taylor Coleridge dreamed his poem *Kubla Khan*, including an ending that he later forgot

Below: Bernard Palissy was a gifted French potter, employed by King Charles IX and other members of the royal family. One of his elaborate rustic designs was inspired by a dream

incidents. Insights have frequently come to artists and scientists in their sleep. It is as if the sleep state enables the subconscious mind to take a leap that is not possible during its waking hours.

Johann Wolfgang von Goethe, the great German poet, scientist and philosopher, reported that he solved many scientific problems and composed poems in his dreams. The Huguenot potter Bernard Palissy made one of his most beautiful ceramic pieces according to a design he had seen in a dream. The French composer Charles Nodier is said to have composed his piece *Lydia* in his sleep. Samuel Taylor Coleridge dreamed the whole of his poem *Kubla Khan* and simply copied it down the following morning. When he was interrupted by a visitor, however, the ending slipped his memory. The dream may have been brought on by the opium to which Coleridge was addicted.

Invention in sleep

Industrial inventions have been made in dreams. One is the technique of making lead shot by dropping molten lead into water from high towers. The drops of lead form perfect spheres during their fall. This process was conceived by James Watt, genius of the steam engine, and is said to have come to him in a dream about falling rain.

Such experiences are easily explained away as cases of the human mind employing its creative faculties more effectively than usual, and passing on the fruits of its activity in dreams. But they could be viewed as similar to those dreams in which the sleeper seems to acquire information that is not accessible to him by any normal means – such as dreams that reveal the identity of a murderer. The following examples of scientists' dream discoveries could be interpreted in this way.

The 19th-century Swiss palaeontologist Louis Agassiz was once trying to guess at the structure of a fossil fish from the faint and confused traces that were exposed on the surface of the stone slab in which it was preserved. He found it impossible to do so. In his dream, however, he saw the complete fish, with all the missing features perfectly restored. But when he awoke, the dream faded before he could record it. He examined the fossil again in the hope that it would bring the dream image back to him, but it failed to do so.

On the following night Agassiz had the same dream, but once again it faded from memory when he woke up. In the hope that he would dream of the complete fish on the third night, the scientist put pen and paper by his bedside. He was rewarded by another 'action replay' of the dream and was able to draw the fossil image immediately, while still half-asleep.

The following day the drawing did not impress Agassiz. He thought the form it showed to be most unlikely. But he went

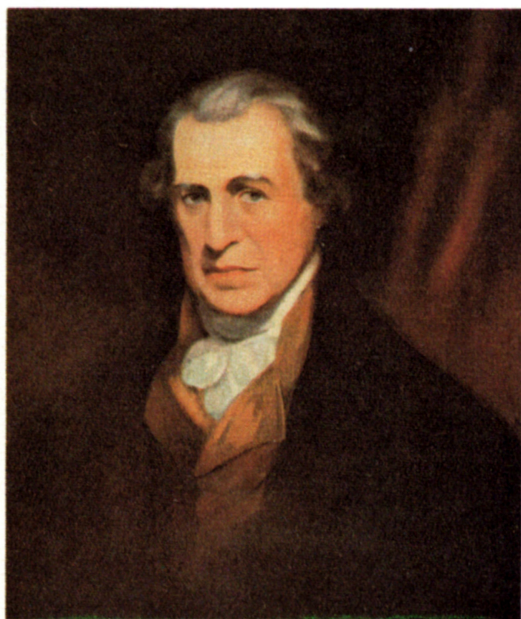


back to the fossil and began to chisel at the surface of the stone, using his sketch as a guide. To his astonishment he was able to reveal the missing parts of the fossil, which proved to be exactly what his dream of the previous night had depicted.

An interesting feature of this case is that Agassiz's conscious mind rejected the sketch because of the implausibility of what it showed. Did his subconscious perceive clues that escaped his observation? Or did he 'see' the shape of the fish by some unknown paranormal means?

Similar questions are posed by the experience of Professor Hilprecht, a scholar who was trying to decipher the words engraved on two small pieces of agate from ancient Babylonia. The *Proceedings* of the Society for Psychical Research for 1900 gave a detailed account of the remarkable way in which a solution to this intractable problem finally came to him.

Professor Hilprecht fell asleep one night after spending many hours in a vain attempt to understand the meaning of the inscription. He dreamed that a tall, thin priest of pre-Christian Nippur (a sacred city near



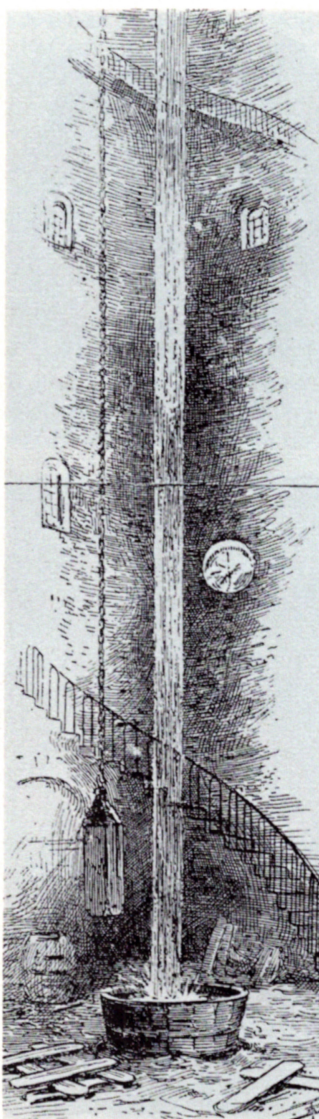
Babylon) led him to a treasure-chamber in a temple. They went into a small, low-ceilinged, windowless room in which there was a large wooden chest. Scraps of agate and lapis lazuli were scattered on the floor. The priest told the professor:

King Kruigalzu [about 1300 BC] once sent to the temple of Bel, among other articles of agate and lapis lazuli, an inscribed votive cylinder of agate. Then we priests suddenly received the command to make for the statue of the god Ninib a pair of ear-rings of agate. We were in great dismay, since there was no agate as raw material at hand. In order for us to execute the command there was nothing for us to do but cut

Right: on three consecutive nights Louis Agassiz had a dream that guided him in his study of a fossil fish



Below left: James Watt was a prolific inventor, best known for revolutionising the steam engine. A dream of rain gave him the idea for a method of making lead shot (below). Molten lead was poured through a grille at the top of a tower. The globules of lead formed into perfect spheres in their fall. They landed in a tub of water and cooled



the votive cylinder into three parts, thus making three rings, each of which contained a portion of the original inscription. The first two served as ear-rings for the statue of the god; the two fragments which have given you so much trouble are portions of them. If you put the two together you will have a confirmation of my words.

The professor's wife testified to seeing her husband leap out of bed, rush into his study to examine the two pieces of agate, and cry out: 'It is so, it is so!'

Messages from the subconscious?

Many sceptics would favour a non-psychic explanation of this puzzle: that the professor's subconscious should take all the credit for fitting together the pieces of the jigsaw and communicating its findings in the form of a dream. The professor had simply slept on a problem and woken up with its answer, woven into a fantasy of a Babylonian priest.

But could it be that Professor Hilprecht was really in touch with the soul of the priest? Or is it possible that the scholar was unwittingly practising psychometry – 'object-reading'? Many psychics claim that just by holding an object they can receive images and impressions concerning its past (see page 566). Perhaps the same thing happened with Professor Hilprecht, and the dream was the means by which the images that were gained in this way were transferred from his unconscious to his conscious mind.

What have scientists discovered about the mysteries of 'dream power' in laboratory experiments? See page 586

Ghosts without souls?

If ghosts are spirits of the dead, as many believe, how can we account for the 'soulless' apparitions – those of animals and inanimate objects – that have been seen? FRANK SMYTH continues his investigation

IN THE MIDDLE of the 1930s a large red London bus bearing a number 7 route number harassed motorists in the North Kensington area of London. The junction of St Mark's Road and Cambridge Gardens in that area had long been considered a dangerous corner – it was 'blind' from both roads – and had caused numerous accidents.

The decision of the local authority to straighten out the bend was partially influenced by the testimony of late night motorists, who claimed that they had crashed at the junction while swerving to avoid a speeding double decker bus that hurtled down St Mark's Road in the small hours, long after regular buses ceased service.

A typical report to the Kensington police read: 'I was turning the corner and saw a bus tearing towards me. The lights of the top and bottom decks and the headlights were full on but I could see no sign of crew or passengers. I yanked my steering wheel hard over, and mounted the pavement, scraping the road-side wall. The bus just vanished.'

After one fatal accident, during which a driver had swerved and hit the wall head on, an eyewitness told the coroner's inquest that he had seen the mystery bus hurtling towards the car seconds before the driver spun off the road. When the coroner expressed what was perhaps natural cynicism, dozens of local residents wrote to his office and to the local newspapers offering to testify that they had

Right: the tale of this phantom ship was reported by the American minister and author Dr Cotton Mather in his book *Wonders of the invisible world* (1702). The ship set sail from America but never reached its destination in England, and nothing was ever heard of it again. Some months later, however, spectators at the port from which it sailed saw what seemed to be the self-same ship appear in a cloud; then it keeled over and simply disappeared

Below: the junction of St Mark's Road and Cambridge Gardens in Kensington, London, became renowned in the 1930s for the mysterious double decker bus that travelled at great speed in that area in the middle of the night – when no buses were in service



seen the 'ghost bus'. Among the most impressive of these witnesses was a local transport official who claimed that he had seen the vehicle draw up to the bus depot in the early hours of the morning, stand with engine purring for a moment, and then disappear.

The mystery was never solved, but it is perhaps significant that the 'ghost' bus was not seen after the danger of the sharp corner was removed, and it was suggested that the vision was 'projected' onto the spot to dramatise the inherent danger of the intersection. If so, by whom? And if, as was also suggested, it was in the minds of the motorists themselves – a sort of natural projection of their fears at the corner – how did they manage to superimpose it on the vision of the passers-by, not to mention that of the bus depot official who saw it from an entirely different angle?

In fact, the phantom motor bus of Kensington epitomises a problem that for centuries has faced those who believe that ghosts



In his book *Supernature* Lyall Watson (below) suggests that the fact that ghosts appear as people remember them indicates that apparitions are part of a mental process rather than a supernatural one. Certainly most ghosts do appear fully clothed or are dressed in a shroudlike garment, as was the ghost that terrorised the residents of Hammersmith, London, in the early 1800s (bottom)



are revenant spirits. If a ghost is the 'soul' of a dead person returned to earth, how do we account for phantom buses – and of course their lineal ancestors phantom coaches, which feature so heavily in folklore?

Come to that, why do returning spirits not appear in the nude – for with very few reliably recorded exceptions, none do? As Lyall Watson succinctly puts it in his book *Supernature*: 'While I am prepared in principle to concede the possibility of an astral body, I cannot bring myself to believe in astral shoes and shirts and hats.'

'Ghostly' lore is strewn with stories of inanimate objects suddenly becoming apparent to the sense of observers, from the 'phantom' accordion accredited to Daniel Dunglas Home, the 19th-century Spiritualist, to Macbeth's dagger. In the latter case William Shakespeare, writing in an age steeped in superstition, seems to have been aware of the anomaly of 'spirit objects' as he was of almost every other field of human

experience: '... art thou, O fateful dagger, sensible to feeling as to sight, or art thou but a dagger of the mind, a false creation, proceeding from the heat oppressed brain?'

One of the most convincing stories of totally 'soulless' apparitions is recorded in the day book of the Tower of London – a place that according to popular belief is saturated with ghosts. The man who made the entry was Edmund Lenthal Swifte, who in 1814 was appointed Keeper of the Crown Jewels and continued in the office until 1842, a total of 28 years. The account of what he saw on a Sunday evening in October 1817 is best left to him.

I was at supper with my wife, our little boy, and my wife's sister in the sitting room of the Jewel House, which is said to have been the 'doleful prison' of Anne Boleyn and of the ten bishops whom Oliver Cromwell piously accommodated there. The doors were all closed, heavy and dark curtains were let down over the windows, and the only light in the room was that of two candles on the table. I sat at the foot of the table, my son on my right, my wife fronting the chimney piece, and her sister on the opposite side. I had offered a glass of wine and water to my wife, when on putting it to her lips she paused, and exclaimed, 'Good God! what is that?'

I looked up, and saw a cylindrical figure, like a glass tube, something about the thickness of my arm, and hovering between the ceiling and table; its contents appeared to be a dense fluid, white and pale azure . . . incessantly rolling and mingling within the cylinder. This lasted about two minutes, when it began to move before my sister-in-law, following the oblong shape of the table, before my son and myself. Passing behind my wife it paused for a moment over her right shoulder (observe there was no mirror opposite in which she could then behold it.) Instantly she crouched down, and with both hands covering her shoulder, shrieked out, 'Oh Christ! It has seized me!'

Even now as I write I feel the horror of that moment. I caught up my chair striking at the 'appearance' with a blow that hit the wainscot behind her. It then crossed the upper end of the table and disappeared in the recess of the opposite window.

There was no recurrence of this curious manifestation, but some years later it did help Swifte's judgement of a soldier in the Tower who actually died from fright of what he had seen outside Swifte's 'front door'.

The soldier had been on sentry-go outside the Jewel House when, at around midnight, he had heard a guttural snarl behind him and turned to see a huge black bear, reared up on



Ghosts

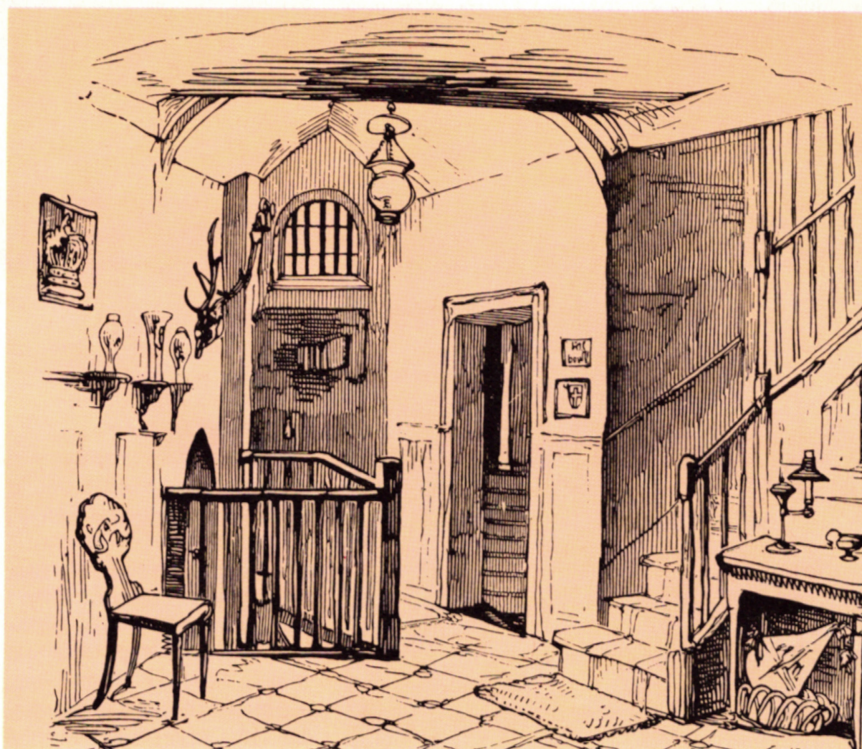
its hind legs, fangs bared, eyes red with rage, and talons groping towards him. The soldier rammed his bayonet into the belly of the animal, but the weapon passed clean through and the apparition disappeared.

A patrol found the soldier a few moments later, senseless. The bayonet, with a heavy 'Tower issue' musket attached, was embedded in the solid wood of the door. The soldier was taken, still insensible, to the guardroom, where a doctor pronounced that he was neither drunk nor asleep, and the following morning Swifté interviewed him; over and over the soldier repeated his bizarre tale until, three days later, he died.

For about 300 years, until the middle of the 17th century, the Tower housed a royal menagerie, and among the animals recorded as having been kept were a number of bears. Although no account of an autopsy on the soldier survives, the fact that he died three days after his experience could indicate that he was ill without knowing it, and that the apparition was an hallucination caused by his illness. On the other hand, animal ghosts make more sense as 'revenant spirits' than their human counterparts, for the reason already given; they at least 'appear' exactly as in life. The fact that Man has lost most of his 'primitive' instincts while animals retain theirs may also have an as-yet unexplained bearing on their 'paranormal' role.

A phantom pig

Stories of phantom dogs are common to the United States, Europe, and many parts of Africa. Ghostly horses, cattle, and even sheep have their part in folklore, and although, like all folk tales, the accounts of their appearances have undoubtedly become distorted in the telling over centuries, some are eerily convincing. In 1908 the British Society for Psychical Research (SPR) made exhaustive enquiries into the appearance of what appeared to be a phantom pig in the



Above: the Jewel House in the Tower of London where Edmund Swifté and his family were troubled by a cylindrical form filled with blue and white fluid

Below: phantom horses, complete with riders, are a common form of haunting, and are usually associated with a particular place. Possibly they are a kind of recording of a highly emotional or dramatic event, which is 'replayed' in certain circumstances

village of Hoe Benham, near Newbury, Berkshire.

On 2 November 1907, two young men named Oswald Pittman and Reginald Waud were painting in the garden of their house, Laburnum Villa. At 10 a.m. Pittman got up to speak to the milkman and saw his friend Miss Clarissa Miles coming up the lane; she was due to join the men for a painting session. Accompanying her like a pet dog was a large white pig with an unusually long snout. When Pittman told Waud about it, Waud asked him to tell Miss Miles to keep the animal outside and close the garden gate securely – Waud was a keen gardener and did not want it among his plants. However, when Miss Miles arrived she was alone, and denied all knowledge of the animal. If it had been following her, she pointed out, she would surely have heard it grunting and pattering. However, she and Pittman went back up the lane and asked several children if they had seen a pig that day; none of them had done so. The following morning the milkman, pressed by a bewildered Pittman, signed a statement to the effect that he had not seen a pig, and he pointed out that in any case the area was under a swine fever curfew, and any stray animal would be destroyed.

Pittman and Waud went to London for a few months and while there reported the odd incident to a member of the SPR. When they returned to Hoe Benham in February, however, the story of Pittman's apparition had become widespread, and shedding their natural reserve the villagers inundated them with stories of previous 'phantoms'. Local theory had it that they all stemmed from the suicide of a farmer named Tommy King whose farm, which was demolished in 1892,



had bordered the lane. Investigation of the parish records showed there had been two Tommy Kings, one dying in 1741 and the other in 1753, but there was no indication of which one was the suicide. An old man named John Barrett testified that when he was a boy in 1850 he had been returning with seven or eight men in a hay cart along the lane when 'a white thing' appeared in the air. All the men had seen it, and the horses obviously had too, for they went wild.

'This thing kept a-bobbin' and a-bobbin' and the horses kept a-snortin' and a-snortin'' until the wagon reached the neighbourhood of King's Farm, when the shape vanished. In 1873, at the same spot, Barrett had seen a creature 'like a sheep' pawing the ground in the lane. He took a blow at it with his stick, but it disappeared before the stick landed.

Another man, Albert Thorne, said that in the autumn of 1904 he heard 'a noise like a whizzin' of leaves, and saw summat like a calf knuckled down' about 2½ feet (75 centimetres) high and 5 feet (1.5 metres) long, with glowing eyes. As he watched, it faded away. Yet another witness, unnamed, said that, in bright moonlight in January 1905, he had

Okehampton Castle in Devon, England. A 17th-century phantom coach, constructed of the bones of the four husbands of the 'Wicked Lady Howard' – all of whom she is said to have murdered – travels the road that runs across the moor from Tavistock to Okehampton. The ashen, sheeted spectre of Lady Howard rides inside the coach and a skeleton hound runs before it. According to legend, each night the hound must pick a blade of grass from Okehampton Park to take back to Lady Howard's family home at Tavistock – a penance that must be endured until every blade of grass is picked



seen what he took to be the curate's dog in the lane. It was large and black. Assuming that it had strayed, he went to grab it, and it appeared to turn into a donkey, rising up on its hind legs threateningly before vanishing.

Pittman, Waud, and Miss Miles reported one more experience. While walking in the lane, Miss Miles was suddenly overcome by an irrational fear, and told her companions that she felt the presence of an evil being, charged with malice towards them. She also felt that she was suffocating. As they reached the spot where Pittman had seen the pig, all three heard an 'unearthly scream', although no one else was about. Waud, who had been sceptical from the beginning, was finally convinced that the ghostly animal existed by this cry from nowhere.

Animal investigators

The sensitivity of animals, particularly cats and dogs, to paranormal phenomena is almost a truism. Dr Robert Morris of Kentucky, a parapsychologist who used animals as 'controls' in his experiments in the 1960s, reported his investigation of a haunted house in one room of which a tragedy had occurred. He used a dog, cat, rat, and rattlesnake.

The dog upon being taken about two or three feet [less than a metre] into the room immediately snarled at its owner and backed out of the door. No amount of cajoling could prevent the dog from struggling to get out and it refused to re-enter. The cat was brought into the room carried in its owner's arms. When the cat got a similar distance into the room, it immediately leaped upon the owner's shoulders, dug in, then leaped to the ground, orienting itself towards a chair. It spend several minutes hissing and spitting and staring at the unoccupied chair in a corner of the room until it was finally removed . . .

[The rattlesnake] immediately assumed an attack posture focusing on the same chair that had been of interest to the cat. After a couple of minutes it slowly moved its head toward a window, then moved back and then receded into its alert posture about five minutes later . . .

The rat was the only creature not to react at all, but all four animals were tested in a separate room some time later, and there behaved normally.

In the misty world of apparitions, no one, not even the most dedicated psychological researcher, knows quite what is the motivation behind them. What we do know is that they are not confined to human beings; the 'ghosts' of both animals and inanimate objects have been lucidly recorded over the years, even including the 'soul' of a London Transport bus.

Do ghosts provide final proof of a life after death? See page 574

The secrets of the earth

Dowsers claim to sense a strong 'earth force' along leys – and scientific experiments appear to confirm its existence. But what is its nature, asks ANNA PAVORD – and how was early Man able to use it?



THAT LEYS EXIST is doubted neither by the practical nor by the mystical researchers into the subject. The question that neither side has yet answered satisfactorily is why. Alfred Watkins, representative of the practical school, supposed that the straight lines marked primitive trackways, but recognised that there were enormous flaws in this explanation, for leys led over impassable bogs or dropped over sheer cliffs.

Professor Alexander Thom, the engineer who surveyed over 600 megalithic sites and was the first person to document the precision with which they had been constructed, supposed that the monuments that stood on them had been experimental observatories. He noted that the sites aligned with other stones or landscape features, and surmised that these alignments were of astronomical significance. Alignments stretching from Stonehenge to Gibbet Knoll in the north west and to Figsbury Ring in the south east he interpreted as Moon sighting lines, and he saw the whole of the stone complex at Carnac in Brittany as an experimental site for refining the processes of astronomy. But there are problems with this explanation too. Why were the observatories built on such a massive scale when smaller ones might have given the same results? Why are there so many of these structures? Why, if early Man was simply building mathematical machines, did he go to such enormous lengths to import specific materials with which to build them? The answer to these questions is nothing but a resounding silence.

A large number of the present notions about the ley system centre upon the idea of a power, generally called the 'earth force', which provides a psychic as well as a physical

alignment between ancient sites and which can be measured, not with the ruler, but with dowsing tools and the gaussometer. Another great question mark hangs over the nature of this power. Is it electromagnetic? Or is it some form of purely psychic force?

Guy Underwood spent more than 20 years of his life as a dowser before he died in 1964 at the age of 81. He firmly believed that there were lines of power over the earth, which he called geodetic lines, and which he could not classify as purely gravitational, rotational or magnetic forces. The system he devised was complex and involved the mapping and classification of several different types and patterns of the power that he was the first to call the 'earth force'. Underwood identified 'blind springs' at the points at which the primary lines of his system converged and noticed that the force formed spirals at blind springs, which usually had seven coils and which seemed to pulse with an annual rhythm.

The living countryside

Underwood believed that the primary geodetic lines were, in a geographical sense, fixed and that they were recognised not only by primitive Man, but by plants and animals too. He put forward evidence to show that pigs, sheep, dogs, hares, rabbits, tortoises, lizards, geese, owls and ants all used the lines of the earth force in some way. Badgers' setts and moles' nest hills were made over blind springs. Rookeries were built over them, gnats danced and ants made hills on them. Mistletoe and yew grew best above them. Willow, cedar and hawthorn were also sensitive to the primary lines.

Blind springs existed under megalithic



Professor Alexander Thom (above) was the first serious researcher to chart the precision with which early Man had constructed his early monuments, such as the stone circles in Britain and the extraordinary alignments at Carnac in Brittany, France (top). They were undoubtedly built according to some kind of plan – but what was their significance? Professor Thom suggested that they might be astronomical observatories – but if so, why are they built on such a massive scale? And why are there so many?

monuments, and were indeed the reason for their having been built at particular sites. Underwood also showed that the shapes of the enigmatic hillfigures that are scattered over Britain's downland were defined by geodetic lines. The eye of the White Horse at Uffington, Berkshire, lies directly over a blind spring.

The building of medieval churches and cathedrals also seemed to him to have been dictated to some extent by the lines of the earth force. The size and shape of a churchyard, the position of the lych gate, the alignment of the nave, all depended on geodetic lines, with a blind spring under the chancel steps.

Underwood's idea of an earth force that travelled along geodetic lines is very similar to the ley concept, which suggests that megalithic sites were chosen for a particular reason and that they were not only physically aligned but also connected by a measurable force that was allied in some way to the power of the mind.

The geographer Dr E. T. Stringer has proposed instead a telluric force, comparable to Underwood's earth force, but his theory

Dowser Guy Underwood (1883–1964) believed that early Man was sensitive to a mysterious force in the ground that flowed along channels that he called geodetic lines. Where these lines formed shapes of animals, he suggested, the ancients traced them on the landscape to form the famous hill-figures of England, such as the Uffington white horse in Wiltshire (below right). Underwood, himself sensitive to the geodetic force, discovered that the geodetic lines at Uffington (below) followed very closely the outline of a startlingly realistic figure of a horse; the familiar, curiously dragon-like figure that is traced on the hillside can be seen as a cryptic clue to the shape of the hidden power

(see box) suggests that geodetic lines and leys are 'evidence of the existence of a force produced by the Earth and its inhabitants acting in combination rather than evidence of a force emanating from the Earth itself.'

A tentative link has been suggested between the earth force and the orgone energy that Wilhelm Reich claimed that he had isolated as a pure, subatomic, primal force. Reich built orgone chambers constructed of alternating layers of organic and inorganic materials in which orgone energy could be intensified into swirling, spiralling patterns. Irradiation in an orgone chamber had, claimed Reich, the effect of releasing blocked energy flows in the body and of generally revitalising the system.

Spiritual energy

Many of the greatest works of the megalith builders, such as Newgrange in Ireland and Silbury Hill in Wiltshire, England, were constructed using carefully chosen layers of earth and chalk – organic and inorganic material. Newgrange lies on an alignment that also passes through a standing stone and an earth mound; Silbury also lies on an



important ley. John Michell has put forward the idea that some power similar to Reich's orgone energy may have been generated in the ancient sacred sites, and used by megalithic Man for a spiritually revitalising ritual, and that this power was perhaps transmitted along definite paths – ley lines.

It has also been suggested that the presence of quartz at megalithic sites may be responsible for the earth force. Quartz is one of the commonest of all minerals, so the fact that it occurs at megalithic sites is not in itself surprising. However, the remarkable thing about quartz is that it is *piezoelectric* – that is, it becomes electrically charged when physical pressure is applied to it. It is claimed that the amount of charge produced is sufficient to affect the ionisation of the surrounding air to such an extent that physiological changes can be caused in the bodies of living creatures that happen to be in the vicinity.

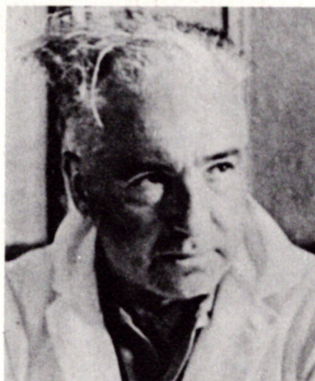
The presence of a particular kind of

crystal along the ley lines has also been put forward as a reason for the apparent connection between leys and UFOs. A writer in *The Ley Hunter* magazine suggested – rather improbably – that ‘suitable crystals built into a ley, would provide the anode of an electric circuit, with the cathode in the UFO overhead; together they would provide something similar to a photo-electric beam – anyone stepping onto the ley would break the circuit and trigger off the reaction – in this case the embodiment of the UFO. In the laboratory, such a circuit produces coloured images similar to an Adamski saucer.’ What are we to make of such claims? The statement that anyone stepping onto the ley would break the circuit is clearly nonsense: human bodies actually conduct electricity *better* than air – so the whole argument is destroyed.

The UFO connection

The correlation between leys and UFOs can be dated to the French UFO flap of 1954, when Aimé Michel published an analysis of the UFO sightings of that year. His conclusion was that UFOs travel along specific paths, which he called orthotenes. In the early 1960s an ex-RAF pilot and UFO enthusiast, Tony Wedd, made a tentative attempt to relate orthotenes to leys, but no conclusive evidence emerged before the whole orthoteny theory fell into disfavour. Nevertheless, it seems that UFO sightings have a tendency to cluster round ley centres like Warminster in Wiltshire, where 13 leys converge. Some people think that UFOs navigate by leys, others that they use ley power for their own propulsion, or else to overcome the gravitational pull of the Earth. Yet another theory suggests that UFOs are intended to draw our attention to leys so that we can once again utilise the ancient powers.

UFOs are not the only phenomena that seem to be attracted to ley lines. One researcher, Phil Grant, noted that in the Bournemouth area more than 90 per cent of all recorded supernatural manifestations occur



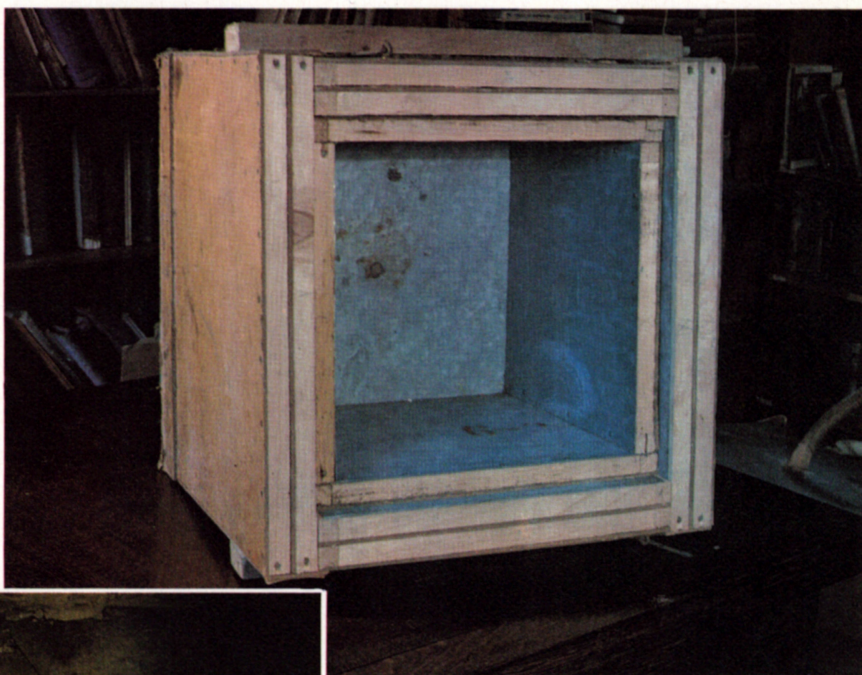
Wilhelm Reich (above) claimed to be able to produce pure primal energy in ‘orgone’ chambers made of layers of organic and inorganic material (below). It has been suggested that monuments like Newgrange in Ireland (bottom), built of chalk and earth, were also used to produce energy

on known ley lines. John Michell calls them ‘paths of psychic activity’. Stephen Jenkins observes in his book *The undiscovered country* that various kinds of psychic phenomena appear to be triggered off at points where leys cross. He describes a phantom army, a Roman legion that he saw in Cornwall:

The clumps and bushes were very still in the windless evening light when suddenly I experienced what I took to be a startlingly vivid optical illusion. Scattered among them, motionless but frighteningly distinct, was a crowd, a host of armed men. For a moment I stood stock still, unable to believe my eyes, then I began to run towards them. At once something like a curtain of heated air wavered in front of them briefly – and there were only bushes and stones.

This apparition occurred when Jenkins was 16 years old – and before he had ever heard of ley lines. Nearly 40 years later he returned to the same spot with his wife – and once again the eerie army shimmered on the ley.

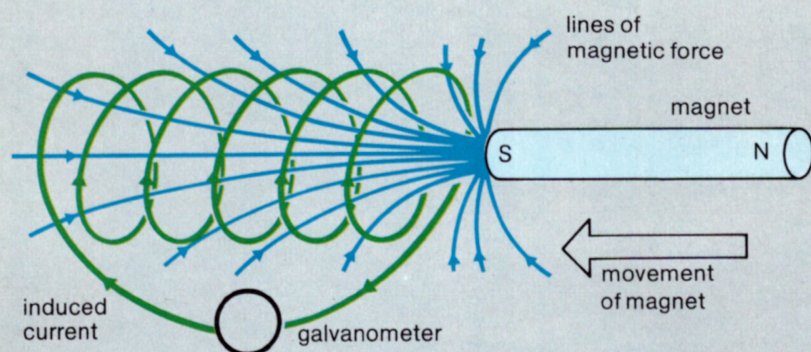
Jenkins agrees with the dowser Tom



Lethbridge that some kind of powerful force can be triggered off at particular sites such as ley crossings, and that in these places the force exerts a particularly powerful effect on the human mind. Lethbridge also suggested that there may be worlds, not necessarily physical, that run parallel with our own, and that certain places act as ‘trapdoors’ that can suddenly precipitate us into one of these parallel realms (see page 451).

Unfortunately there have been very few attempts to examine scientifically the nature of the power that dowsers and others can still feel in standing stones, stone circles and along the ley system. While researching for his book *Earth magic*, the author Francis

A balance of forces



In his book *The secret of the gods*, Dr E. T. Stringer puts forward an original – and seemingly plausible – explanation of ley lines. Like many others, he believes that leys are channels of an earth force, which he calls a ‘telluric force’ – from the name of the Roman earth goddess, Tellus.

The telluric force, he suggests, is induced by electric currents inside the Earth. Experiments carried out by Dr Harold S. Burr and Dr F. S. C. Northrop

at Yale University show that all living forms – as well as the Earth itself – possess magnetic fields. And Faraday’s law of electromagnetic induction states that, if a piece of material that conducts electricity is moved about in a magnetic field, then an electric current will be induced in it.

‘The movements of the Earth . . . will obviously cause a rotation of all the electromagnetic fields,’ says Dr Stringer. He goes on to claim that the rotation of the Earth induces a current in conductors within it; and ‘the presence of this current in turn gives rise to a force, in accordance with the usual laws of electricity.’ This is the physical component of the ‘Planetary Telluric Force’.

What is wrong with this argument? It is plain enough to see that Dr Stringer has not given enough thought to what is moving and what is still in his application of the law of induction. He is perfectly right when he says that a conductor moving in a magnetic field will carry a current. But as the Earth spins, conductors and magnetic fields are all moving at the same speed – so no current can be generated!

Hitching set up an experiment that involved a Welsh dowser, Bill Lewis, a 12-foot (4-metre) high standing stone near the river Usk at Crickhowell in South Wales and a physicist, Dr Eduardo Balanovski from Imperial College in London. Bill Lewis claimed that the stone transmitted a force that he could sense and that seemed to wax and wane at intervals. He was interested to know if this could be scientifically proven.

The power of the spiral

Dr Balanovski arrived at the site armed with a gaussmeter, an instrument that measures to an accuracy of thousandths of a gauss the magnetic field strength of the earth. In general this is very stable, averaging 0.47 gauss in Britain. The background levels of the site were checked and the meter set, but when the measuring device was pointed at the stone, the needle shot over the dial, showing a variation far greater than the few thousandths of a gauss that would have been reasonably expected.

In a later experiment that included Professor John Taylor of King’s College in London, Bill Lewis marked a spiral pattern on the stone indicating the band where he felt the power to be at its strongest. The gaussmeter showed that, on some parts of the spiral, the strength was almost double that over the rest of the stone. Professional reticence coloured Taylor’s comment: ‘These early results must be treated with great caution.’ Balanovski, however, was more forthcoming: ‘I do not personally believe



A quartz standing stone at Cregg, County Kerry, Ireland. Quartz is piezoelectric – it becomes electrically charged under pressure; it has been claimed that this is responsible for the power of prehistoric megaliths

that the stone was accidentally chosen or accidentally placed,’ he said. ‘The people who put it there knew about its power, even if they didn’t know about electro-magnetism.’

It seems possible, therefore, that megaliths act as transformers for some kind of energy, possibly electromagnetic in form, which they convert from sinuous underground streams to straight overground paths. It seems possible also that early Man instinctively recognised this force, and over thousands of years experimented with ways of channelling it and concentrating its random effects. He learned that the power could be amplified in the stone chambers of barrows, that it could be tapped by setting up huge rocking stones and stone circles along the power paths. He also learned that the power was influenced by the movements of the Sun, Moon and stars, and so experimented with methods of predicting eclipses and equinoxes using vast stone observatories. It is even possible that he harnessed the power itself to raise the huge stones.

Many see this period as the apogee of a civilisation obsessed with harmony and number that, using instinct as well as intellect, worked to combine terrestrial geometry with celestial movements, generating an energy that was natural and beneficent. Their monuments are in ruins, their rituals almost forgotten, their power system, the leys, tangled and nugatory. Behind the whole complex pattern lies a lost knowledge that, if we could rediscover it, might one day be the salvation of the entire human race.

Further reading

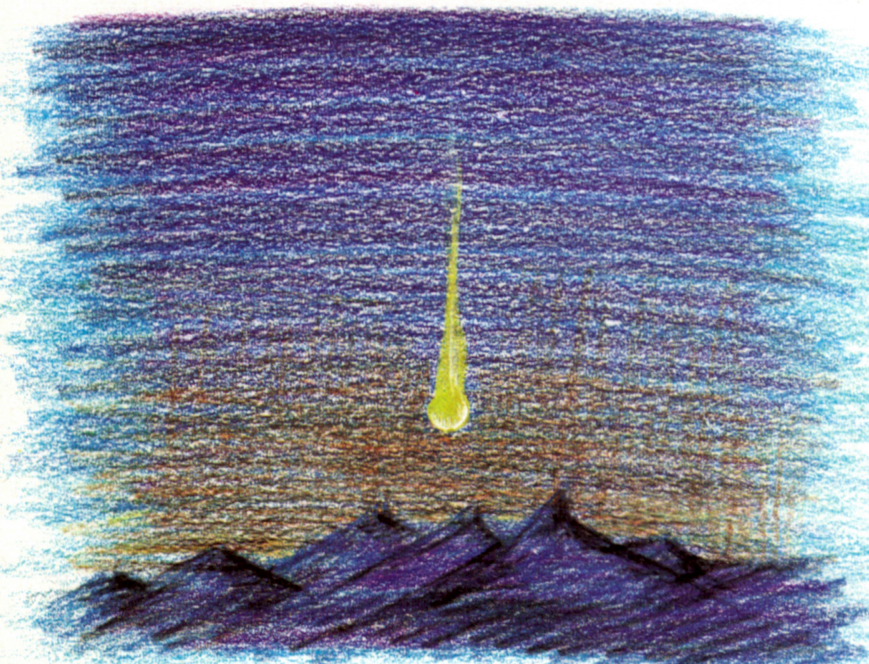
Paul Devereux and Ian Thomson, *The ley hunter’s companion*, Thames and Hudson, 1979
Francis Hitching, *Earth magic*, Picador 1977
Alfred Watkins, *The old straight track*, Abacus 1974

Sightings and side effects

THE 'REALITY' OF UFOS – whether they are 'nuts and bolts' craft, or some vision-like projection – is the subject of hot debate. But witnesses and participants in close encounters frequently report physical side-effects such as violent headaches, fits of weeping,

Animals, countryside – and humans – may suffer physical reactions to a UFO visitation. CHARLES BOWEN describes three such incidents

and buzzing in the ears. In the cases that follow, zoo animals stampede and soldiers are paralysed in Malagasy while an Argentinian girl weeps for days after a UFO passes by – so just how 'unreal' can such alien craft actually be?



'A luminous green ball'

Close encounter of the second kind:
Tananarive, Madagascar,
August 1954

One of the most spectacular of all 'light in the sky' UFO fly-overs took place over the city of Tananarive, capital of Madagascar (now Malagasy) one day in August 1954.

Edmond Campagnac, head of Technical Services of Air France, was waiting with a group of people outside the Air France office on the Avenue de la Libération for the arrival of the air mail from Paris.

Suddenly Monsieur Campagnac saw a luminous green ball in the sky. It was descending, almost vertically, like a meteorite. Other people followed his gaze, and the object was seen to disappear behind mountains to the south of the city.

The time was 5.45 p.m. and dusk was approaching, although the setting Sun was still visible. While the group waited outside the Air France office, they were joined by scores of others on the streets as people began their journeys home from work.

The witnesses were still watching when an object of the same colour as that seen seconds earlier appeared over the hills near the old Queen's Palace, this time 'flying' horizontally and at a slower speed. The UFO curved past the government buildings, still appearing like a green ball. Soon it was descending even lower, almost to roof-top height, and heading along the eastern side of the Avenue

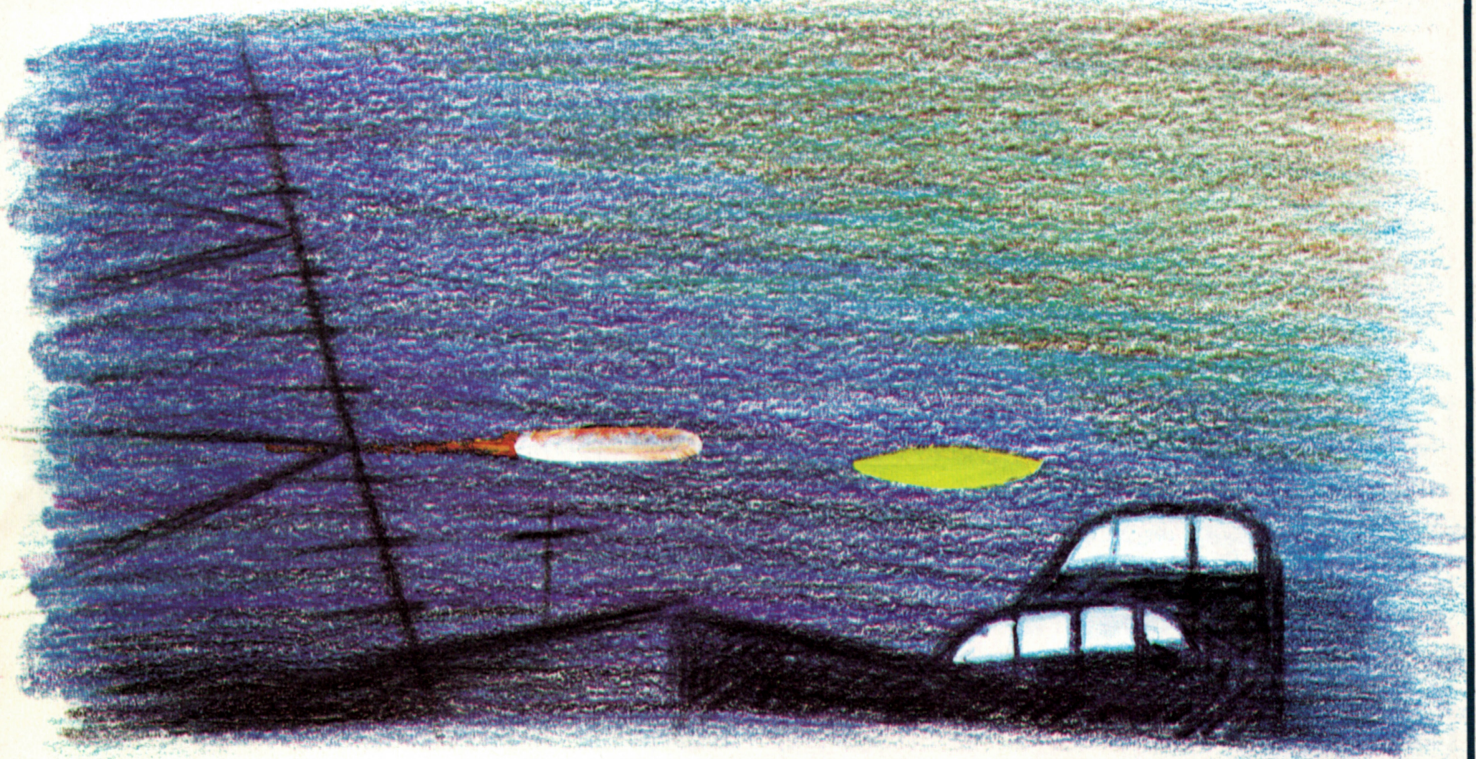
de la Libération, just above the building opposite the Air France office.

As the light drew level with the group, they saw that it was in fact *two* objects. A lentil-shaped device was leading the way, and this was described as having the colour of an 'electric-green luminous gas'. Following some 100 feet (30 metres) behind was a metallic-looking cylindrical object, about 130 feet (40 metres) in length. While described by some as a 'cigar', others said it looked more like the fuselage of the contemporary Constellation aircraft shorn of fins, elevators, wings and engines. The surface of the cylinder reflected the dying rays of the sun, while behind it there splayed a plume of orange-red flame. Estimates of the speed of the objects were in the region of 300 km/h (185 miles per hour).

People stopped and gazed in amazement at the phenomenon, so much so that a pall of quietness hung over the city. The giant cigar and its lenticular companion were completely silent. Then there was another shock for the observers for, as the objects passed over the buildings, all the electric lights were extinguished, coming on again only after the objects had passed.

The strange aerial duo continued over the city towards Tananarive airport, then swung away to the west. Before passing from sight they skimmed over a zoological park where the animals, which were normally quite undisturbed by aircraft flying into and out of the airport, went into a panic and stampeded through fences. It was several hours before soldiers and police could round them up.

Not surprisingly there was a great furore in Tananarive over this invasion of Madagascar airspace, and an official enquiry was set up by General Fleurquin, the Air Force Commandant. This was conducted by Father Coze, director of the Tananarive Observatory. Father Coze had been at the observatory at the time of the incident and had himself witnessed the passage of the UFOS. He estimated that at least 20,000 people had seen the objects, and he and his helpers questioned more than 5000 witnesses. It is not known what happened to his report of this remarkable encounter. If it ever reached France, it certainly failed to arouse interest. Details were known only to a handful of French researchers in the early 1960s,



and to *Flying Saucer Review* in 1966, which received an account from Monsieur René Fouéré of the *Groupeement d'Etude de Phénomènes Aériens* (GEPA). But not a hint of the affair was known to the French public until

1974, when M. Jean-Claude Bourret broadcast his famous series of programmes on Radio France-Inter, transcripts of which appeared in his book *The crack in the Universe*, published in 1977.

'A shining egg'

Close encounter of the second kind:
Malagasy Republic,
May 1967

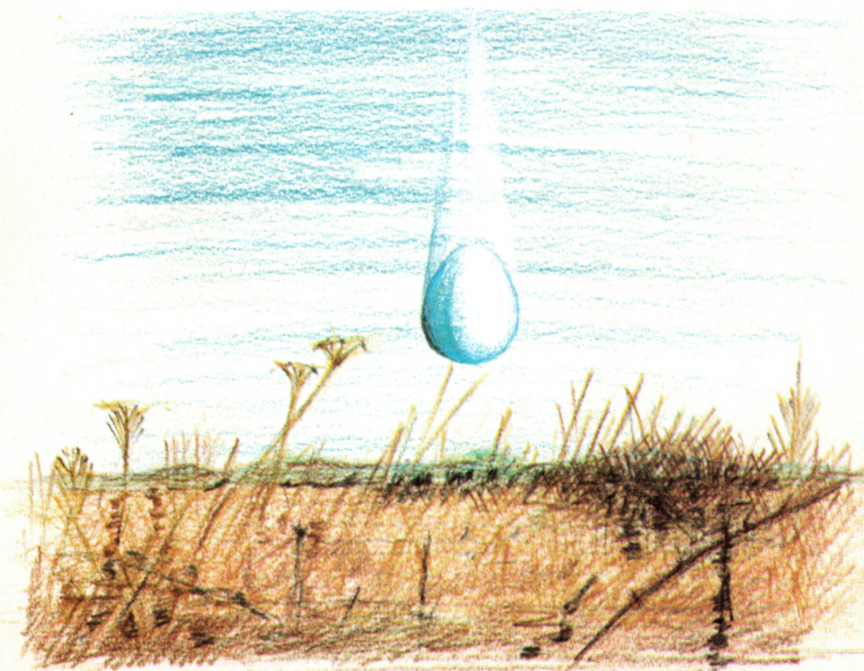
In May 1967 there was said to be another alarming close encounter in Malagasy. But it took 10 years before news of the incident reached *Flying Saucer Review* from the French research group *Lumières dans la nuit*. On this occasion, the reason for the delay was that the witnesses were 23 soldiers, their

officer and four NCOs of the French Foreign Legion, and they were forbidden to discuss the affair. The eventual informant was a legionnaire named Wolff.

Wolff's platoon, which was on a reconnaissance exercise, had halted at noon in a clearing in the bush country. The troops were eating lunch when they all saw a bright metallic object resembling a 'shining egg' descend rapidly like a falling leaf, accompanied by a piercing, whistling sound, then thump into the ground. All the soldiers were 'paralysed' and, seemingly immediately, saw the object take off. But when watches were checked, the time was 3.15 p.m., which meant that three hours had passed.

M. Wolff claimed that the object was about 23 feet (7 metres) high and 10 to 13 feet (3 to 4 metres) wide at the widest part. It rose slowly at first, and then vanished at high speed, as though 'sucked up into the sky'. It left three marks in the ground that looked as if they had been made by legs, and a 10-foot (3-metre) deep crater, at the bottom of which was a sort of vitrified ring of coloured crystals.

None of the witnesses could recall what had happened during the missing hours, but for two days afterwards they all had violent headaches, with constant 'beating' in the region of the temples and a continual buzzing sound in the ears.





'An impression of goodness and kindness'

Close encounter of the third kind:
Córdoba, Argentina,
June 1968

The Motel La Cuesta is a well-appointed roadhouse, situated on Highway 20 that connects the town of Villa Carlos Paz, in the province of Córdoba, with eastern Argentina. The small country town is 500 miles (800 kilometres) to the west of Buenos Aires.

The motel's proprietor, Señor Pedro Pretzel, 39, lived at the motel with his wife and his 19-year-old daughter, Maria Eladia.

On the night of 13 June 1968, at about 12.50 a.m., Señor Pretzel was walking home when he saw, some 55 yards (50 metres) beyond the motel – and apparently on the highway – an object that he could not identify. It had two bright red lights, but could not be a car because it projected beams of peculiar intensity at the motel. This 'machine' was in view for only a few seconds. Puzzled and alarmed, Señor Pretzel ran to his motel and found Maria Eladia lying in a dead faint close to the kitchen door. After she had been revived she had a bizarre tale to tell.

Only a few minutes earlier she had said goodnight to her fiancé and had escorted some guests to the door; then she returned to the kitchen. Suddenly she noticed that the lobby was flooded with light. As she had just switched the lights off, she went to investigate. She was horrified to find herself face-to-face with a 'man' some 6 feet (2 metres) tall, dressed in a kind of diver's suit that had shiny, sky-blue scales. He was fair-haired, and was holding up his left hand, on the palm of which a sky-blue ball, or sphere, was moving about.

Maria said there was a huge ring on the fourth finger of the creature's right hand, which he moved up and down constantly in front of her. She was overcome by lethargy, as though strength was being drained from her. Light came from the creature's fingertips and feet and it seemed to Maria that the lethargic feeling was strongest when the light was pointed directly at her. But apart from this he showed no signs of aggression. Indeed, Maria remembers an impression of 'goodness and kindness' emanating from the being who, she added, smiled throughout the

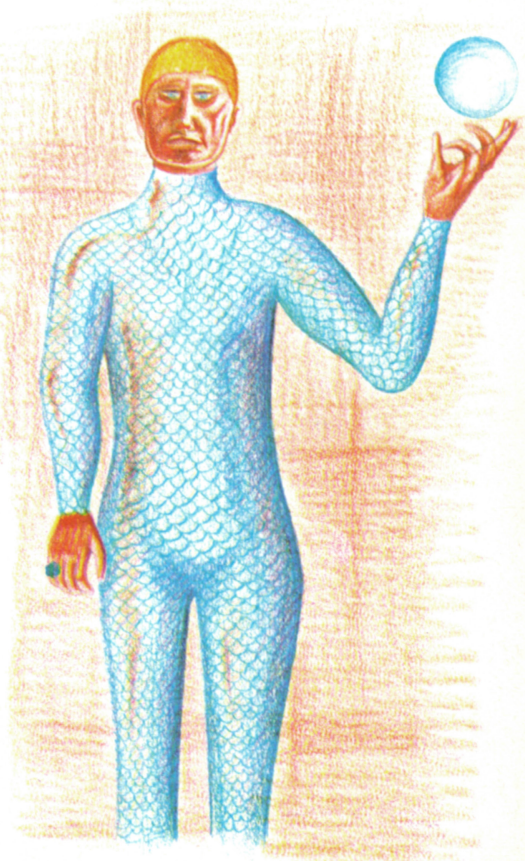
encounter. She said he also seemed to be trying to communicate with her, for, although his lips did not move, she could hear an unintelligible mumble that sounded 'like Chinese'.

After a few minutes – during which Maria stood transfixed in the presence of the humanoid – he walked, with slow, precise movements, to the side door, which was open. He went out and the door closed of its own accord. It was at that moment that Maria lost consciousness. Shortly afterwards her father discovered her on the floor.

Señor Pretzel reported the incident to the police, who promised to investigate it. As for Maria, she became extremely nervous and was subject to fits of weeping for some days after the affair.

Did Maria Eladia Pretzel witness a projected image – that of a 'man' in her kitchen – that was emitted from the UFO her father had seen on the nearby highway? If she had been witness to such a phenomenon, then it is possible that her father came on the scene just as the image was about to be withdrawn. Could the 'humanoid' have been a hologram transmitted by laser beams and projected against, say, the glass of the lobby window? (The intense beams of light seemed to have been emitted by the UFO, and it was presumably this light that first attracted Maria's attention.)

But however the strange and alarming effects were produced the questions remain: Why? And by whom?



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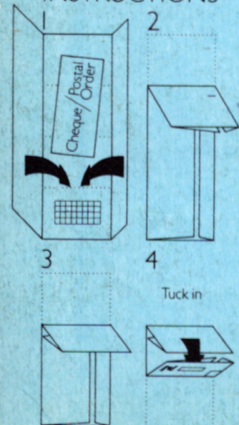


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